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EXAMINER

HENDRICKSON, STUART L

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1754

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Please find below and/or attached an Office communication concerning this application or proceeding.

\*U.S. GPO: 2000-472-999/43204

Art Unit: 1754

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-41 of U.S. Patent No. 6214309. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims encompass the milling conditions patented.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) In claims 1, 4, 9, 16, and 23, 'high energy' is subjective and unclear.

B) In claims 3 and 24, 'mixture' is meant.

C) In claims 8, 14 and 23, 'nanostructured' is unclear as to whether crystallite size is meant.

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D) In claim 9, 'precursor' should be deleted. What would be a 'precursor' to a metal? Is transmutation implied? Isn't the metal source the same thing as the precursor to the carbide? The separate listing implies two different metals which form carbides. 'Source' appears intended.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. taken with Crawford et al.

Lee teaches in col.3-4 mixing pitch and silica, grinding and forming a carbide. While not teaching 'high energy' milling, Lee teaches small carbon pellets. Thus intense, energetic, grinding is suggested. Crawford teaches in column 5 milling to make small particles.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the milling of Crawford in the process of Lee because doing so makes the small particles desired.

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Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. taken with Crawford et al. as applied to claims 1, 2 and 4-7 above, and further in view of Kurachi.


The above does not teach the carbon sources, but Kurachi does in column 5. Using them in the process of Lee is an obvious expedient to provide the carbon source required by Lee.

Claims 1-5, 7-14, 16-21 and 23-26 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dunmead et al. '803.

Dunmead teaches in column 7 and ex. 1 ball-milling carbon black and metal oxide. If another material is meant in claim 9, a milling media is present, as may be cobalt oxide. The mix is heated in Ar to form carbide. While not explicitly teaching 'high energy', the 50 rpm recited appears to be 'high'. In any event, using the claimed milling is an obvious expedient to make fine particle size for more efficient reaction (col. 5 middle).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

  
Stuart Hendrickson  
examiner Art Unit 1754